

CLAIMS

1. A flexible semi-conductive material in sheet form characterised by spaced first rails (10) for the supply and return of electrical power, the said rails (10) having a flexibility compatible with the semi-conductive material, and there being a supplementary rail (11) attached to each first rail along the length thereof, the supplementary rails (11) being flexible and having strength characteristics greater than those of the first rails (10).

2. A flexible semi-conductive material in sheet form as in Claim 1, characterised in that the supplementary rails (11) are a braid formed from conductive wires, the wire diameters being of a size that affords considerable individual flexibility, but relatively low strength, but which when interwoven with other wires, forms a braid that has a flexibility that is commensurate with the flexibility of the sheet of semi-conductive material and the first rails (10).

3. A flexible semi-conductive material in sheet form characterised in that the first rails (10) are formed by a tin plated conductive foil.

4. A flexible semi-conductive material in sheet form as in Claim 3, characterised in that the surface (3) of the semi-conductive material is provided with a coating (9) of an antifaying compound to which the first rails (10) are attached by an electrically conductive adhesive.

5. A flexible semi-conductive material in sheet form as in Claim 4, wherein the antifaying compound is a nickel based compound.

6. A flexible semi-conductive material in sheet form as in any of Claims 1 to 3, characterised in that the first rails (10) are attached directly to the surface (3) of the semi-conductive material by an electrically conductive material, the supplementary rail (11) being attached to the first rail (10) and the first rail and supplementary rail being overlaid by an antifaying compound (9).

7. A flexible semi-conductive material in sheet form as in Claim 6, characterised in that the antifaying compound is a nickel based compound.

8. A flexible semi-conductive material in sheet form as in Claims 1 and 2, characterised in that the first rails (12) are formed by conductive ink.

9. A flexible semi-conductive material in sheet form as in Claim 8, characterised in that rail (12) of conductive ink is applied to the surface (3) of the flexible semi-conductive surface by screen printing.

10. A flexible semi-conductive material in sheet form as in any of Claims 1 to 9,
5 characterised in that the supplementary rail (11) is attached to the first rail (10, 12) by an electrically conductive ink and/or by stitching.